**Amendments to the Specification:**

Please amend the following paragraph beginning at page 5, line 29 as follows:

Fig. 2 shows a magnetoelectric magnetic field sensor according to the present invention. The sensor has a PZ layer 20 bonded to and disposed between MS layers 22 24. The MS layers 22 24 and PZ layers are bonded by adhesive layers 25. The device has a longitudinal dimension L and a transverse dimension T. The device has a L/T aspect ratio, which is the ratio of the longitudinal dimension L to the transverse dimension T. In the present invention, the L/T aspect ratio is greater than 1, and can be 2, 4, 10, 20, 100 or higher. The MS layers 22 24 are necessarily magnetized in a direction parallel with the longitudinal direction L. A bias magnetic field 26 is applied in the longitudinal direction so that the MS layers 22 24 ~~layers~~ have enhanced sensitivity; the bias field 26 also assures the magnetization of the MS layers 22 24 is oriented in the longitudinal direction. The strength of the bias field is ~~adjust~~ <u>adjusted</u> so that the magnetization and strain of the MS layers 22 24 are maximally sensitive to changes in magnetic field. The bias field 26 can be applied by permanent magnets 27, for example. Alternatively, the bias field 26 can be applied by a solenoid winding around the device.

Please amend the following paragraph beginning at page 5, line 13 as follows:

Another important parameter is the ratio of the aggregate thickness of the MS layers to the total device thickness. The optimum thickness ratio depends on the MS material and PZ material. Equations for determining the optimal MS thickness/device thickness ratio are provided below. Typically the optimal MS/total device thickness ratio is about ~~0.50-0.8~~ <u>0.5-0.8</u>.

Please amend the following paragraph beginning at page 8, line 26 as follows:

The L-L configuration of Fig. 5 has a sensitivity even higher than the L-P device of Fig. 2. Fig. 6, for example, shows a graph of sensitivity versus bias field for the present L-L device of Fig. 5. The L-L device used to generate Fig. 6 is made with two TERFENOL-D MS layers and a longitudinally-poled single crystal PMN-PT layer disposed between the MS layers. The sensitivity was measured using a detected magnetic

field with a frequency of 1kHz. At a bias field of 600-800 Oe, the L-L device has an extremely high sensitivity of over 225 mV/Oe. The extremely high sensitivity of the L-L configuration is partly a result of the d33 piezoelectric constant, which is typically higher than the d31 piezoelectric constant employed in the L-P configuration, and partly due to the small capacitance (i.e. capacitance between output wires 28 30) of this laminate design. Assuming that the induced charge Q from the piezoelectric layer is the same for both the L-T and L-L, a small capacitance C means a higher induced voltage according to V=Q/C. Also, the piezoelectric material PMN-PT used in the device that generated the graph of Fig. 6 has an exceptionally high d33 piezoelectric constant.